

| L Number | Hits   | Search Text                         | DB  | Time stamp       |
|----------|--------|-------------------------------------|---|------------------|
| 1        | 1      |                                     | USPAT   | 2002/03/22 12:05 |
| 2        | 1      |                                     | USPAT   | 2002/03/22 12:05 |
| 3        | 1      |                                     | USPAT   | 2002/03/22 12:08 |
| 4        | 1      |                                     | USPAT   | 2002/03/22 12:10 |
| 5        | 1      |                                     | USPAT   | 2002/03/22 12:11 |
| 6        | 1      |                                     | USPAT   | 2002/03/22 12:11 |
| 7        | 1      |                                     | USPAT   | 2002/03/22 12:12 |
| 8        | 1      |                                     | USPAT   | 2002/03/22 12:12 |
| 9        | 1      |                                     | USPAT   | 2002/03/22 12:12 |
| 10       | 1      |                                     | USPAT   | 2002/03/22 12:15 |
| 11       | 1      |                                     | USPAT   | 2002/03/22 12:16 |
| 12       | 1      |                                     | USPAT   | 2002/03/22 12:16 |
| 13       | 1      |                                     | USPAT   | 2002/03/22 12:16 |
| 14       | 1      |                                     | USPAT   | 2002/03/22 12:16 |
| 15       | 1      |                                     | USPAT   | 2002/03/22 12:16 |
| 16       | 1      |                                     | USPAT   | 2002/03/22 12:17 |
| 17       | 1      |                                     | USPAT   | 2002/03/22 12:17 |
| 28       | 1      |                                     | USPAT   | 2002/03/22 12:36 |
| 29       | 1      |                                     | USPAT   | 2002/03/22 12:36 |
| 32       | 1      |                                     | USPAT   | 2002/03/22 12:38 |
| 33       | 1      |                                     | USPAT   | 2002/03/22 12:38 |
| 34       | 1      |                                     | USPAT   | 2002/03/22 12:38 |
| 35       | 1      |                                     | USPAT   | 2002/03/22 12:38 |
| 36       | 1      |                                     | USPAT   | 2002/03/22 12:39 |
| 37       | 1      |                                     | USPAT   | 2002/03/22 12:39 |
| 38       | 1      |                                     | USPAT   | 2002/03/22 12:39 |
| 39       | 1      |                                     | USPAT   | 2002/03/22 12:39 |
| 40       | 1      |                                     | USPAT   | 2002/03/22 12:39 |
| 41       | 1      |                                     | USPAT   | 2002/03/22 12:40 |
| 42       | 1      |                                     | USPAT   | 2002/03/22 12:40 |
| 73       | 218    | 361/790.ccls.                       | USPAT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT;<br>IBM TDB | 2002/03/22 13:24 |
| 74       | 1      |                                     | USPAT   | 2002/03/22 13:03 |
| 75       | 1      |                                     | USPAT   | 2002/03/22 13:03 |
| 76       | 1      |                                     | USPAT   | 2002/03/22 13:03 |
| 77       | 1      | ("5434745").PN.                     | USPAT   | 2002/03/22 13:21 |
| 78       | 281    | 361/829.ccls.                       | USPAT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT;<br>IBM TDB | 2002/03/22 13:28 |
| 79       | 281    | 361/829.ccls. not 361/790.ccls.     | USPAT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT;<br>IBM TDB | 2002/03/22 13:24 |
| 80       | 44     | 361/793.ccls.                       | USPAT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT;<br>IBM TDB | 2002/03/22 13:33 |
| 81       | 508181 | Chip anf ring and carrier           | USPAT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT;<br>IBM TDB | 2002/03/22 13:35 |
| 82       | 933    | 257/718.ccls.                       | USPAT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT;<br>IBM TDB | 2002/03/22 13:36 |
| 83       | 422    | 257/718.ccls. and (chip or package) | USPAT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT;<br>IBM TDB | 2002/03/22 13:37 |

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| 84 | 0    | 257/777.ccls and (heat adj (dissipation or sink))  | USPAT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT;<br>IBM TDB | 2002/03/22 13:57 |
| 85 | 0    | 257/777.ccls and (heat adj sink)                   | USPAT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT;<br>IBM TDB | 2002/03/22 13:38 |
| 86 | 108  | 257/777.ccls. and (heat adj (dissipation or sink)) | USPAT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT;<br>IBM TDB | 2002/03/22 13:51 |
| 87 | 1    | interposing adj (heat adj sink)                    | IBM TDB   | 2002/03/22 13:53 |
| 88 | 23   | interpos\$ adj (heat adj sink)                     | USPAT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT;<br>IBM TDB | 2002/03/22 13:54 |
| 89 | 172  | 257/686.ccls. and (heat adj (dissipation or sink)) | USPAT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT;<br>IBM TDB | 2002/03/22 14:07 |
| 90 | 124  | ((heat adk sink) near chip) and stack              | USPAT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT;<br>IBM TDB | 2002/03/22 14:09 |
| 91 | 41   | ((heat adj sink) near chip) and stack              | USPAT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT;<br>IBM TDB | 2002/03/22 14:15 |
| 92 | 933  | 257/718.ccls.                                      | USPAT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT;<br>IBM TDB | 2002/03/22 14:16 |
| 93 | 599  | 257/719.ccls.                                      | USPAT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT;<br>IBM TDB | 2002/03/22 14:16 |
| 94 | 1799 | 257/712.ccls.                                      | USPAT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT;<br>IBM TDB | 2002/03/22 14:16 |
| 95 | 839  | 257/722.ccls.                                      | USPAT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT;<br>IBM TDB | 2002/03/22 14:16 |
| 96 | 879  | 257/668.ccls.                                      | USPAT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT;<br>IBM TDB | 2002/03/22 14:16 |
| 97 | 1267 | 257/723.ccls.                                      | USPAT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT;<br>IBM TDB | 2002/03/22 14:16 |
| 98 | 205  | 257/723.ccls.and (heat adj sink)                   | USPAT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT;<br>IBM TDB | 2002/03/22 14:22 |

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|-----|-----|-----------------------------------|---|------------------|
| 99  | 0   | 257/7686.ccls.and (heat adj sink) | USPAT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT;<br>IBM TDB | 2002/03/22 14:22 |
| 100 | 42  | 257/785.ccls.and (heat adj sink)  | USPAT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT;<br>IBM TDB | 2002/03/22 14:22 |
| 101 | 48  | 257/685.ccls.and (heat adj sink)  | USPAT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT;<br>IBM TDB | 2002/03/22 14:26 |
| 102 | 1   | ("5726492").PN.                   | USPAT   | 2002/03/22 14:25 |
| 103 | 158 | 257/666.ccls.and (heat adj sink)  | USPAT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT;<br>IBM TDB | 2002/03/22 14:26 |
| 104 | 28  | 257/790.ccls.and (heat adj sink)  | USPAT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT;<br>IBM TDB | 2002/03/22 14:26 |

| L Number | Hits   | Search Text  | DB  | Time stamp       |
|----------|--------|--|---|------------------|
| 179      | 343    | 257/777.ccls. and (heat or thermal) and chip                     | USPAT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT;<br>IBM TDB | 2002/03/21 21:23 |
| 180      | 646    | 257/777.ccls.  | USPAT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT;<br>IBM TDB | 2002/03/21 21:23 |
| 181      | 303    | 257/777.ccls. not (257/777.ccls. and (heat or thermal) and chip) | USPAT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT;<br>IBM TDB | 2002/03/21 22:01 |
| 182      | 839    | 257/722.ccls.  | USPAT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT;<br>IBM TDB | 2002/03/21 22:01 |
| 183      | 249    | 257/722.ccls. and chip   | USPAT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT;<br>IBM TDB | 2002/03/21 22:36 |
| 184      | 16647  | (carrier with chip)  | USPAT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT;<br>IBM TDB | 2002/03/21 22:39 |
| 185      | 4593   | ((carrier with chip) ) and (ring or frame)                       | USPAT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT;<br>IBM TDB | 2002/03/21 22:40 |
| 186      | 128952 | 257/\$.ccls.   | USPAT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT;<br>IBM TDB | 2002/03/21 22:41 |
| 187      | 2573   | 257/\$.ccls. and ((carrier with chip) )                          | USPAT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT;<br>IBM TDB | 2002/03/21 22:42 |
| 188      | 1248   | (257/\$.ccls. and ((carrier with chip) )) and (trace or pattern) | USPAT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT;<br>IBM TDB | 2002/03/21 22:45 |
| 189      | 1      |  | USPAT   | 2002/03/21 23:00 |
| 190      | 1      |  | USPAT   | 2002/03/21 23:02 |

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| 84 | 0    | 257/777.ccls and (heat adj (dissipation or sink))  | USPAT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT;<br>IBM TDB | 2002/03/22 13:57 |
| 85 | 0    | 257/777.ccls and (heat adj sink)                   | USPAT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT;<br>IBM TDB | 2002/03/22 13:38 |
| 86 | 108  | 257/777.ccls. and (heat adj (dissipation or sink)) | USPAT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT;<br>IBM TDB | 2002/03/22 13:51 |
| 87 | 1    | interposing adj (heat adj sink)                    | IBM TDB   | 2002/03/22 13:53 |
| 88 | 23   | interpos\$ adj (heat adj sink)                     | USPAT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT;<br>IBM TDB | 2002/03/22 13:54 |
| 89 | 172  | 257/686.ccls. and (heat adj (dissipation or sink)) | USPAT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT;<br>IBM TDB | 2002/03/22 14:07 |
| 90 | 124  | ((heat adk sink) near chip) and stack              | USPAT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT;<br>IBM TDB | 2002/03/22 14:09 |
| 91 | 41   | ((heat adj sink) near chip) and stack              | USPAT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT;<br>IBM TDB | 2002/03/22 14:15 |
| 92 | 933  | 257/718.ccls.                                      | USPAT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT;<br>IBM TDB | 2002/03/22 14:16 |
| 93 | 599  | 257/719.ccls.                                      | USPAT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT;<br>IBM TDB | 2002/03/22 14:16 |
| 94 | 1799 | 257/712.ccls.                                      | USPAT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT;<br>IBM TDB | 2002/03/22 14:16 |
| 95 | 839  | 257/722.ccls.                                      | USPAT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT;<br>IBM TDB | 2002/03/22 14:16 |
| 96 | 879  | 257/668.ccls.                                      | USPAT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT;<br>IBM TDB | 2002/03/22 14:16 |
| 97 | 1267 | 257/723.ccls.                                      | USPAT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT;<br>IBM TDB | 2002/03/22 14:16 |
| 98 | 205  | 257/723.ccls.and (heat adj sink)                   | USPAT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT;<br>IBM TDB | 2002/03/22 14:22 |

| L Number | Hits   | Search Text                         | DB  | Time stamp       |
|----------|--------|-------------------------------------|---|------------------|
| 1        | 1      |                                     | USPAT   | 2002/03/22 12:05 |
| 2        | 1      |                                     | USPAT   | 2002/03/22 12:05 |
| 3        | 1      |                                     | USPAT   | 2002/03/22 12:08 |
| 4        | 1      |                                     | USPAT   | 2002/03/22 12:10 |
| 5        | 1      |                                     | USPAT   | 2002/03/22 12:11 |
| 6        | 1      |                                     | USPAT   | 2002/03/22 12:11 |
| 7        | 1      |                                     | USPAT   | 2002/03/22 12:12 |
| 8        | 1      |                                     | USPAT   | 2002/03/22 12:12 |
| 9        | 1      |                                     | USPAT   | 2002/03/22 12:12 |
| 10       | 1      |                                     | USPAT   | 2002/03/22 12:12 |
| 11       | 1      |                                     | USPAT   | 2002/03/22 12:15 |
| 12       | 1      |                                     | USPAT   | 2002/03/22 12:16 |
| 13       | 1      |                                     | USPAT   | 2002/03/22 12:16 |
| 14       | 1      |                                     | USPAT   | 2002/03/22 12:16 |
| 15       | 1      |                                     | USPAT   | 2002/03/22 12:16 |
| 16       | 1      |                                     | USPAT   | 2002/03/22 12:16 |
| 17       | 1      |                                     | USPAT   | 2002/03/22 12:17 |
| 28       | 1      |                                     | USPAT   | 2002/03/22 12:17 |
| 29       | 1      |                                     | USPAT   | 2002/03/22 12:36 |
| 32       | 1      |                                     | USPAT   | 2002/03/22 12:36 |
| 33       | 1      |                                     | USPAT   | 2002/03/22 12:38 |
| 34       | 1      |                                     | USPAT   | 2002/03/22 12:38 |
| 35       | 1      |                                     | USPAT   | 2002/03/22 12:38 |
| 36       | 1      |                                     | USPAT   | 2002/03/22 12:38 |
| 37       | 1      |                                     | USPAT   | 2002/03/22 12:39 |
| 38       | 1      |                                     | USPAT   | 2002/03/22 12:39 |
| 39       | 1      |                                     | USPAT   | 2002/03/22 12:39 |
| 40       | 1      |                                     | USPAT   | 2002/03/22 12:39 |
| 41       | 1      |                                     | USPAT   | 2002/03/22 12:39 |
| 42       | 1      |                                     | USPAT   | 2002/03/22 12:40 |
| 73       | 218    | 361/790.ccls.                       | USPAT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT;<br>IBM TDB | 2002/03/22 13:24 |
| 74       | 1      |                                     | USPAT   | 2002/03/22 13:03 |
| 75       | 1      |                                     | USPAT   | 2002/03/22 13:03 |
| 76       | 1      |                                     | USPAT   | 2002/03/22 13:03 |
| 77       | 1      | ("5434745").PN.                     | USPAT   | 2002/03/22 13:21 |
| 78       | 281    | 361/829.ccls.                       | USPAT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT;<br>IBM TDB | 2002/03/22 13:28 |
| 79       | 281    | 361/829.ccls. not 361/790.ccls.     | USPAT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT;<br>IBM TDB | 2002/03/22 13:24 |
| 80       | 44     | 361/793.ccls.                       | USPAT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT;<br>IBM TDB | 2002/03/22 13:33 |
| 81       | 508181 | Chip anf ring and carrier           | USPAT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT;<br>IBM TDB | 2002/03/22 13:35 |
| 82       | 933    | 257/718.ccls.                       | USPAT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT;<br>IBM TDB | 2002/03/22 13:36 |
| 83       | 422    | 257/718.ccls. and (chip or package) | USPAT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT;<br>IBM TDB | 2002/03/22 13:37 |

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|-----|--------|--|---|------------------|
| 99  | 0      | 257/7686.ccls.and (heat adj sink)  | USPAT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT;<br>IBM TDB | 2002/03/22 14:22 |
| 100 | 42     | 257/785.ccls.and (heat adj sink)   | USPAT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT;<br>IBM TDB | 2002/03/22 14:22 |
| 101 | 48     | 257/685.ccls.and (heat adj sink)   | USPAT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT;<br>IBM TDB | 2002/03/22 14:26 |
| 102 | 1      | ("5726492").PN.  | USPAT   | 2002/03/22 14:25 |
| 103 | 158    | 257/666.ccls.and (heat adj sink)   | USPAT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT;<br>IBM TDB | 2002/03/22 14:26 |
| 104 | 28     | 257/790.ccls.and (heat adj sink)   | USPAT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT;<br>IBM TDB | 2002/03/22 14:28 |
| 105 | 1      | ("5130771").PN.  | USPAT   | 2002/03/22 15:25 |
| 106 | 222    | 257/721.ccls.  | USPAT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT;<br>IBM TDB | 2002/03/22 15:53 |
| 107 | 404763 | (vent or aperature or hole or gap or space or channel) with (spacer or frame or carrier or ring)   | USPAT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT;<br>IBM TDB | 2002/03/22 16:46 |
| 108 | 27206  | ((vent or aperature or hole or gap or space or channel) with (spacer or frame or carrier or ring)) and (package or chip)                                 | USPAT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT;<br>IBM TDB | 2002/03/22 15:59 |
| 109 | 3946   | ((vent or aperature or hole or gap or space or channel) with (spacer or frame or carrier or ring)) and (package and chip)                                | USPAT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT;<br>IBM TDB | 2002/03/22 15:59 |
| 110 | 13047  | ((vent or aperature or hole or gap or space or channel) with (spacer or frame or carrier or ring)) and (package or chip)) and (pattern or cool or heat)  | USPAT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT;<br>IBM TDB | 2002/03/22 16:00 |
| 111 | 2770   | ((vent or aperature or hole or gap or space or channel) with (spacer or frame or carrier or ring)) and (package and chip)) and (pattern or cool or heat) | USPAT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT;<br>IBM TDB | 2002/03/22 16:00 |
| 112 | 1959   | ((vent or aperature or hole or gap or space or channel) with (spacer or frame or carrier or ring)) and (package and chip)) and pattern                   | USPAT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT;<br>IBM TDB | 2002/03/22 16:03 |
| 113 | 7276   | ((vent or aperature or hole or gap or space or channel) with (spacer or frame or carrier or ring)) and 257/\$.ccls.                                      | USPAT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT;<br>IBM TDB | 2002/03/22 16:42 |

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|-----|--------|--|---|------------------|
| 114 | 128952 | 257/\$.ccls.   | USPAT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT;<br>IBM TDB | 2002/03/22 16:43 |
| 115 | 121676 | 257/\$.ccls. not ((vent or aperature or hole or gap or space or channel) with (spacer or frame or carrier or ring))            | USPAT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT;<br>IBM TDB | 2002/03/22 16:45 |
| 116 | 26275  | (257/\$.ccls. not ((vent or aperature or hole or gap or space or channel) with (spacer or frame or carrier or ring))) and chip | USPAT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT;<br>IBM TDB | 2002/03/22 16:45 |
| 117 | 3471   | 361/\$.ccls. and ((vent or aperature or hole or gap or space or channel) with (spacer or frame or carrier or ring))            | USPAT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT;<br>IBM TDB | 2002/03/22 16:47 |
| 118 | 865    | (361/\$.ccls. and ((vent or aperature or hole or gap or space or channel) with (spacer or frame or carrier or ring))) and chip | USPAT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT;<br>IBM TDB | 2002/03/22 17:07 |
| 119 | 1      | ("6330153").PN.  | USPAT   | 2002/03/22 17:09 |
| 120 | 1      |  | USPAT   | 2002/03/22 17:10 |
| 121 | 1      |  | USPAT   | 2002/03/22 17:10 |
| 122 | 1      |  | USPAT   | 2002/03/22 17:11 |
| 123 | 1      |  | USPAT   | 2002/03/22 17:11 |
| 124 | 1      |  | USPAT   | 2002/03/22 17:11 |
| 125 | 1      |  | USPAT   | 2002/03/22 17:12 |
| 126 | 1      |  | USPAT   | 2002/03/22 17:12 |
| 127 | 1      |  | USPAT   | 2002/03/22 17:13 |
| 128 | 1      |  | USPAT   | 2002/03/22 17:13 |
| 129 | 1      |  | USPAT   | 2002/03/22 17:13 |
| 130 | 1      |  | USPAT   | 2002/03/22 17:13 |
| 131 | 1      |  | USPAT   | 2002/03/22 17:14 |